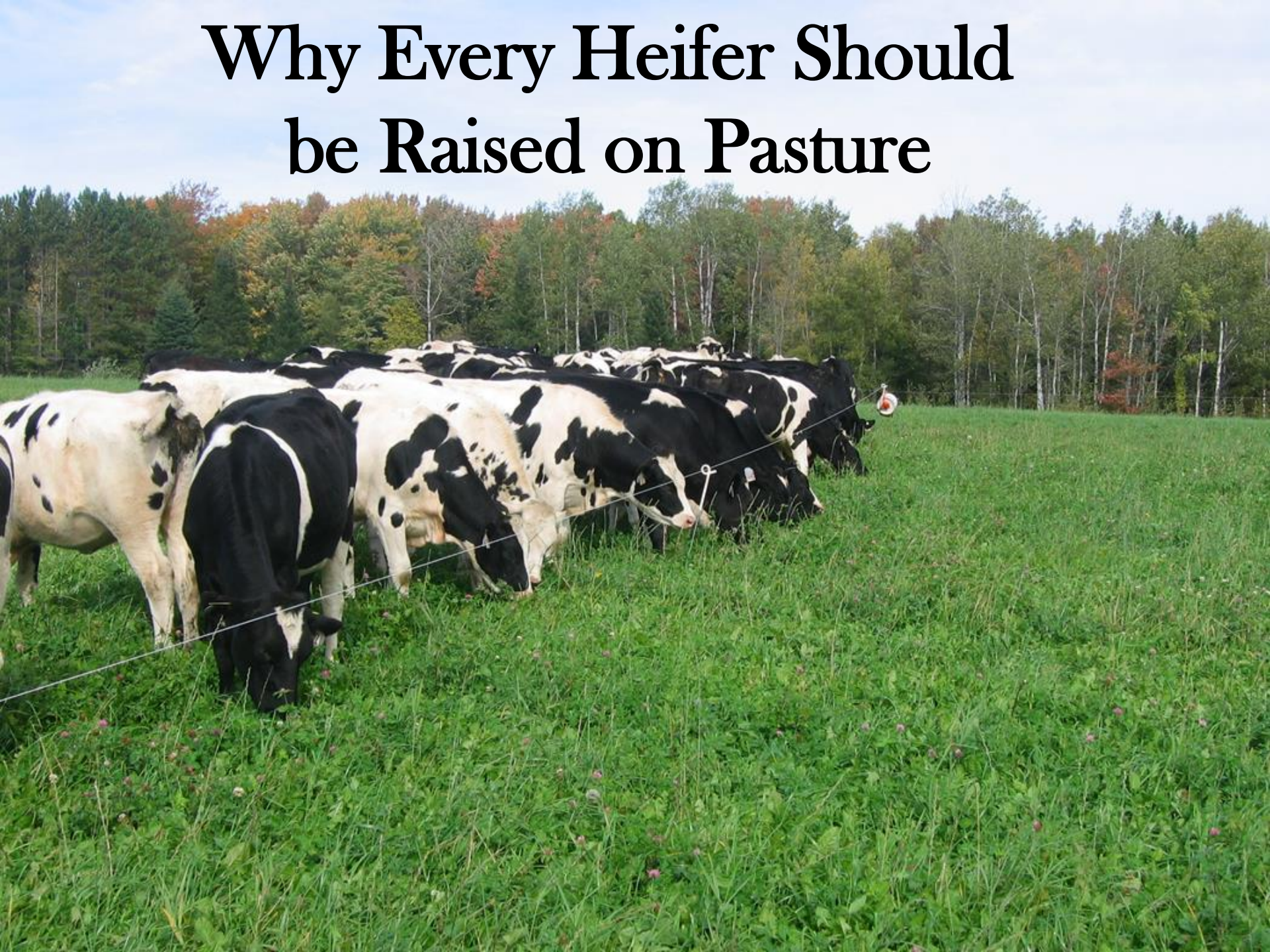
Why Every Heifer Should be Raised on Pasture

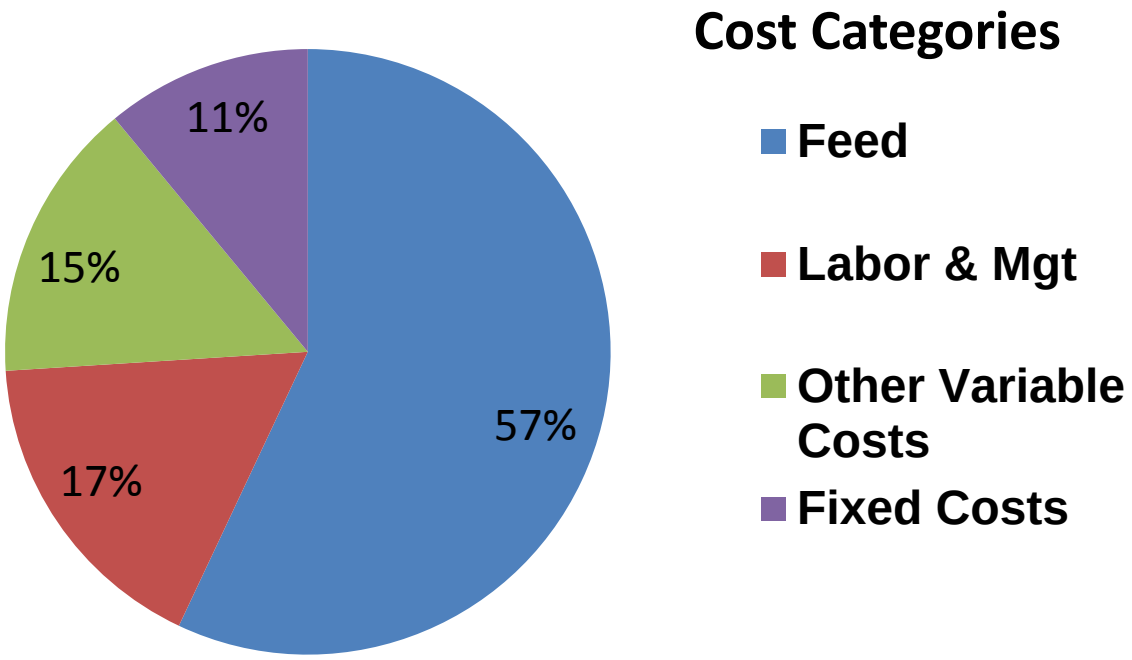


Cost to Raise a Heifer from Birth to Freshening

	2007	2013
Feed	$683	$1,274
Bedding	49	112
Veterinary	33	63
Breeding	49	48
Electric & fuel	34	39
Interest	67	69
Death loss	3	7
Labor (paid & unpaid)	255	372
Management (paid & unpaid)	38	32
Allocated cost (variable + fixed) + labor + mgt	$1,323	$2,274

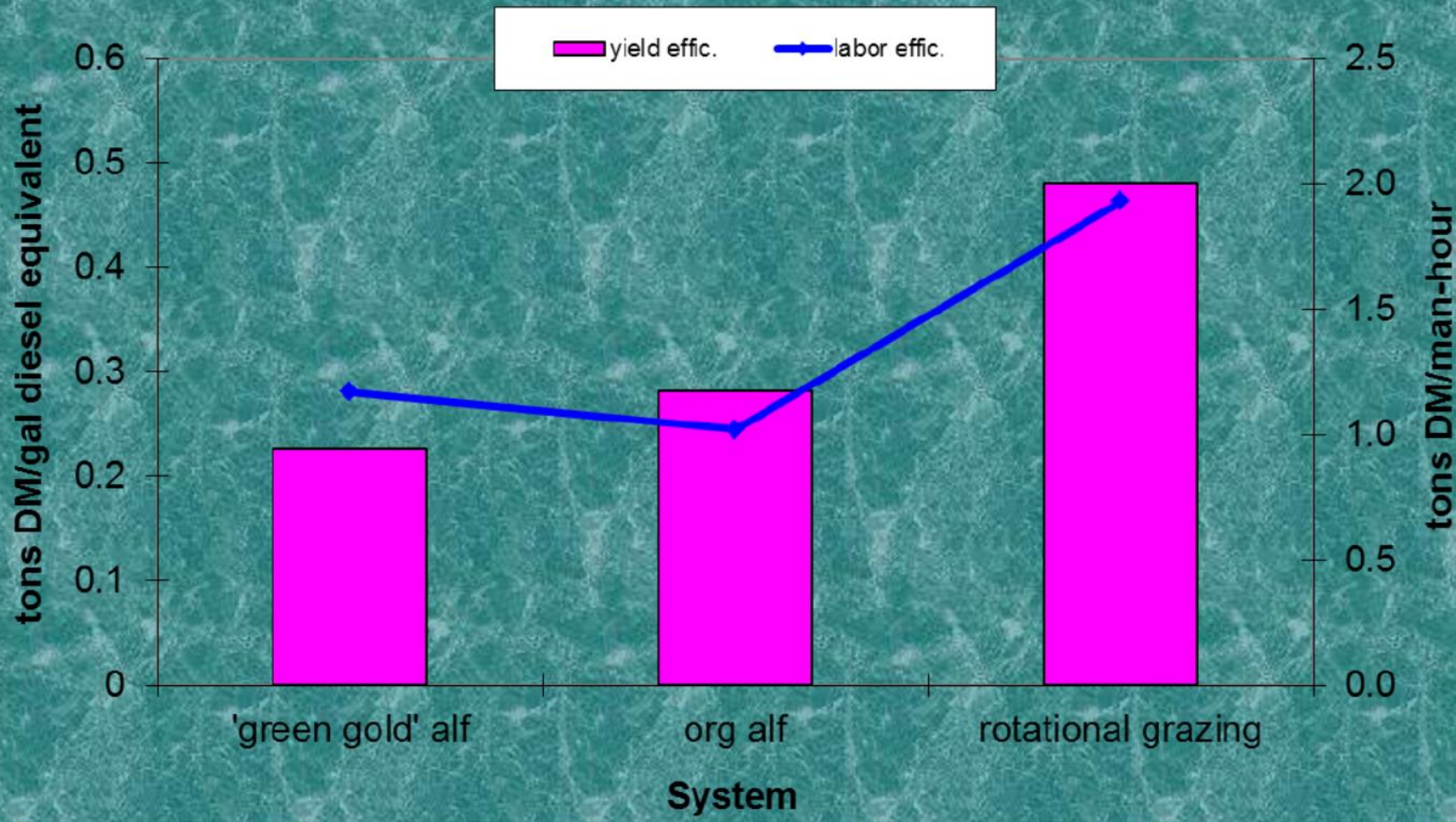
Vanderwerf et al., 2013 UW Extension survey of 32 WI dairy farms & custom heifer growers (no pasture-based farms)

Dairy heifer raising expenses are the second highest expense on most farms.



UWEX ICPA Heifer Raising Costs study, 2013

Energy efficiency in forage systems



Heifer Development Goals

Breed	Birth Weight, lb	Average Daily Gain, lb/day	55% Mature Weight, lb	82% Mature Weight, lb	Mature Body Weight, lb
Holstein, Brown Swiss	100	1.7	825	1230	1500
Guernsey, Ayrshire	75	1.4	688	1025	1250
Jersey	65	1.3	605	902	1100

Study: Pastured Heifer Data was Collected from 2000 - 2010

WISCONSIN INTEGRATED CROPPING SYSTEMS TRIAL (WICST)
(UW-Madison CIAS Research Brief #89, 2012)

Heifers were randomly selected from UW-dairy herd
~500 lbs each; 6 to 10 months old

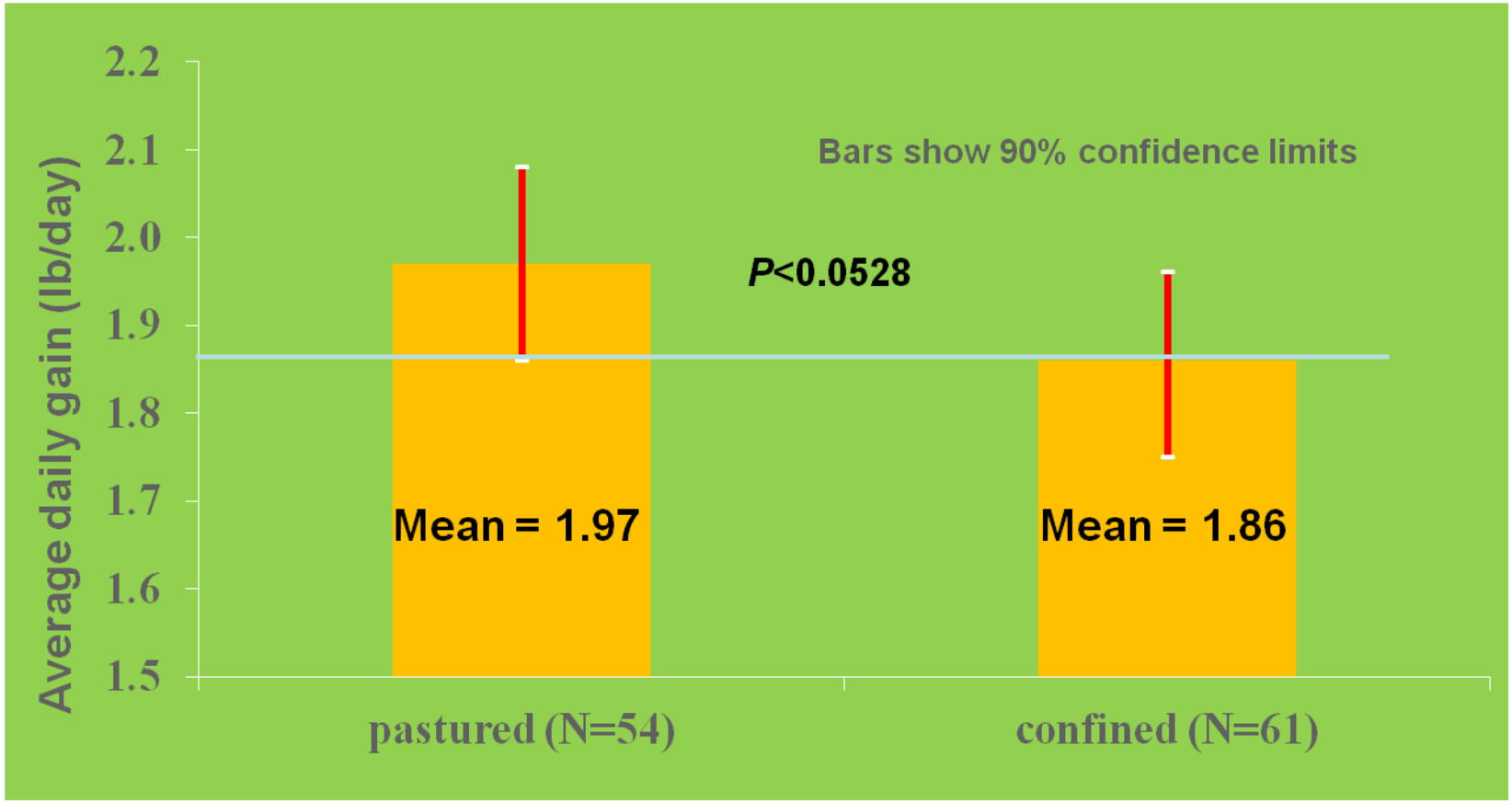
Grazed: 4 to 6 head/yr were grazed on pasture treatments in yearling year (n = 54)

vs.

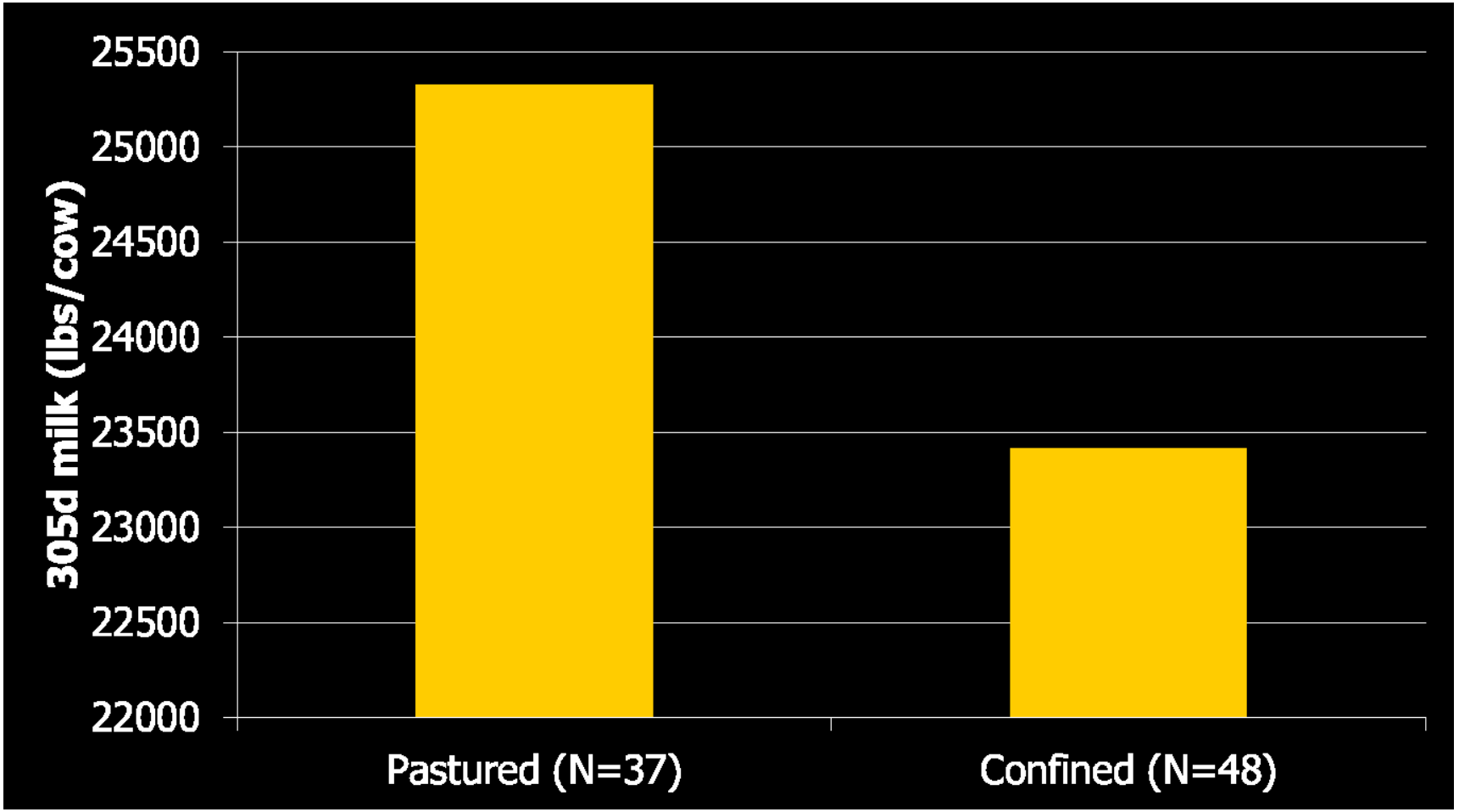
Confined: 4 to 6 head/yr remained with UW herd and fed TMR (n = 61)

- *Pasture stocking density: 1.0 animal units (AU)/acre*

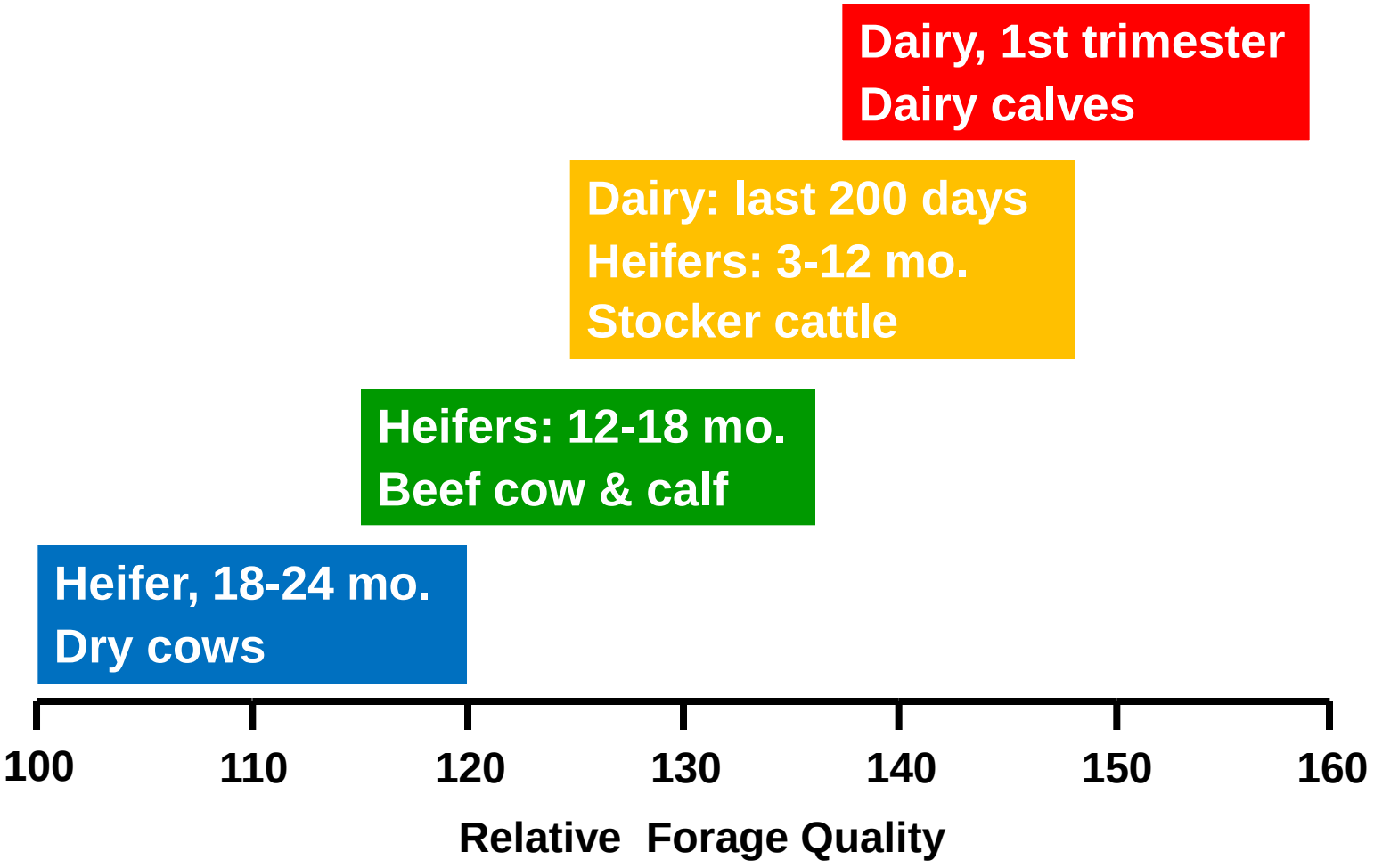
Heifer Weight Gain (11-yr avg)

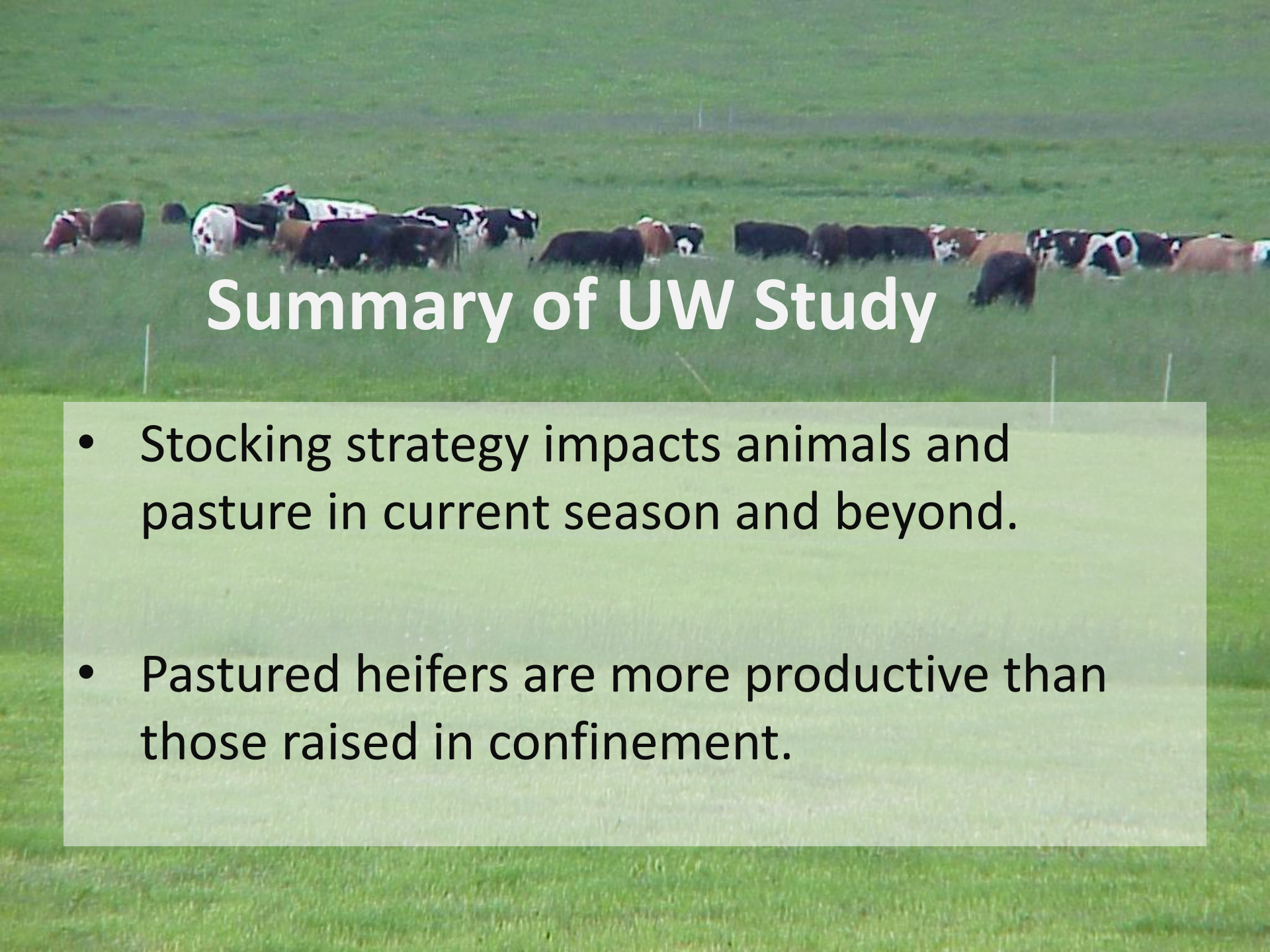


First Lactation Performance (10 yr avg)



Cattle: Relative Forage Quality Needs

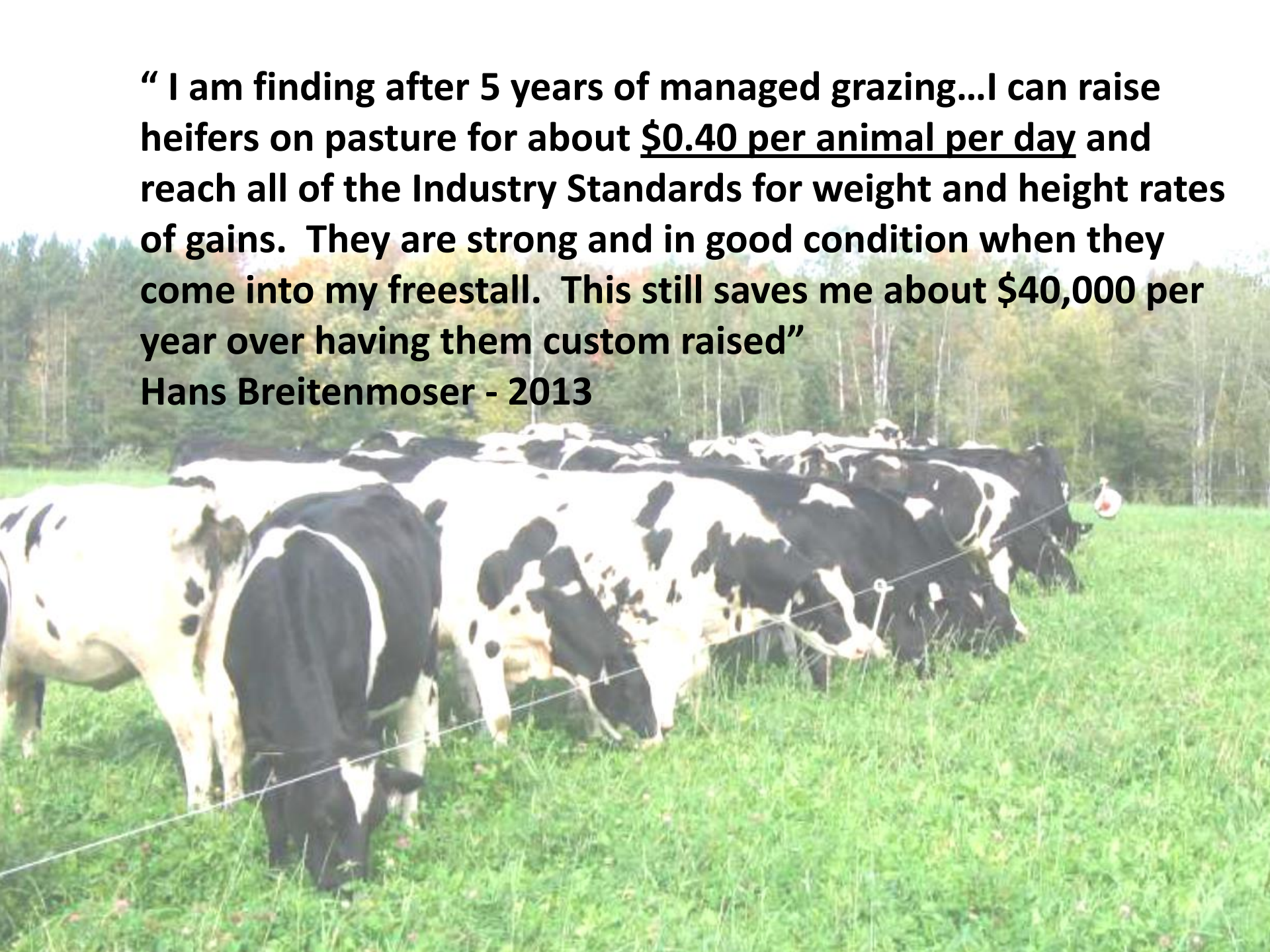




Summary of UW Study

- Stocking strategy impacts animals and pasture in current season and beyond.
- Pastured heifers are more productive than those raised in confinement.

Local Success Story
Hans Breitenmoser – 400 head Dairy



“ I am finding after 5 years of managed grazing…I can raise heifers on pasture for about <u>$0.40 per animal per day</u> and reach all of the Industry Standards for weight and height rates of gains. They are strong and in good condition when they come into my freestall. This still saves me about $40,000 per year over having them custom raised”
Hans Breitenmoser - 2013

Breitenmoser Farms Heifer Weight Summary

Rate of Gain per day: (actual average daily gains from weighed animals)

28-April-09	01-July-09	30-July-09	04-Sept-09	01-Oct-09	31-Oct-09
2.112	0.849	2.62	1.74	3.35	2.39

02-Dec-09	30-Jan-10	03-April-10	05-May-10	06-June-10	05-July-10
2.08	1.89	1.79	1.51	1.86	2.25

71 Acre Rotational Grazing Farm

	w/ cost share	w/o cost share
Cost/Day Custom Raised	$2.25	$2.25
Number of Animals	125	125
Days of Grazing	180	180
Hours of Labor/Day	1.25	1.25
Labor Cost/Hour	$15.00	$15.00
Land Rent/Acre	$35	$35
Cost of Grazing Setup	$6,174	$20,580
Year Amor. Costs	$552	$1,841
Amortization & Mainten.	$2,090	$3,379
Vet. Services ($5/animal)	$625	$625
Cost/Animal/Day	$0.3811	$0.4384
Savings/year	$42,050	$40,761

Cost per day to have heifers custom raised	**$3.00**
Number of animals	**125**
Days of grazing	**180**
Hours of labor per day	**1.25**
Labor cost/hr	**$15.00**
Land rent per acre	**$250.00**
Acres	**71**
Cost of grazing development	**$6,174.00**
per year on 20 yr amortization	**$552.00**

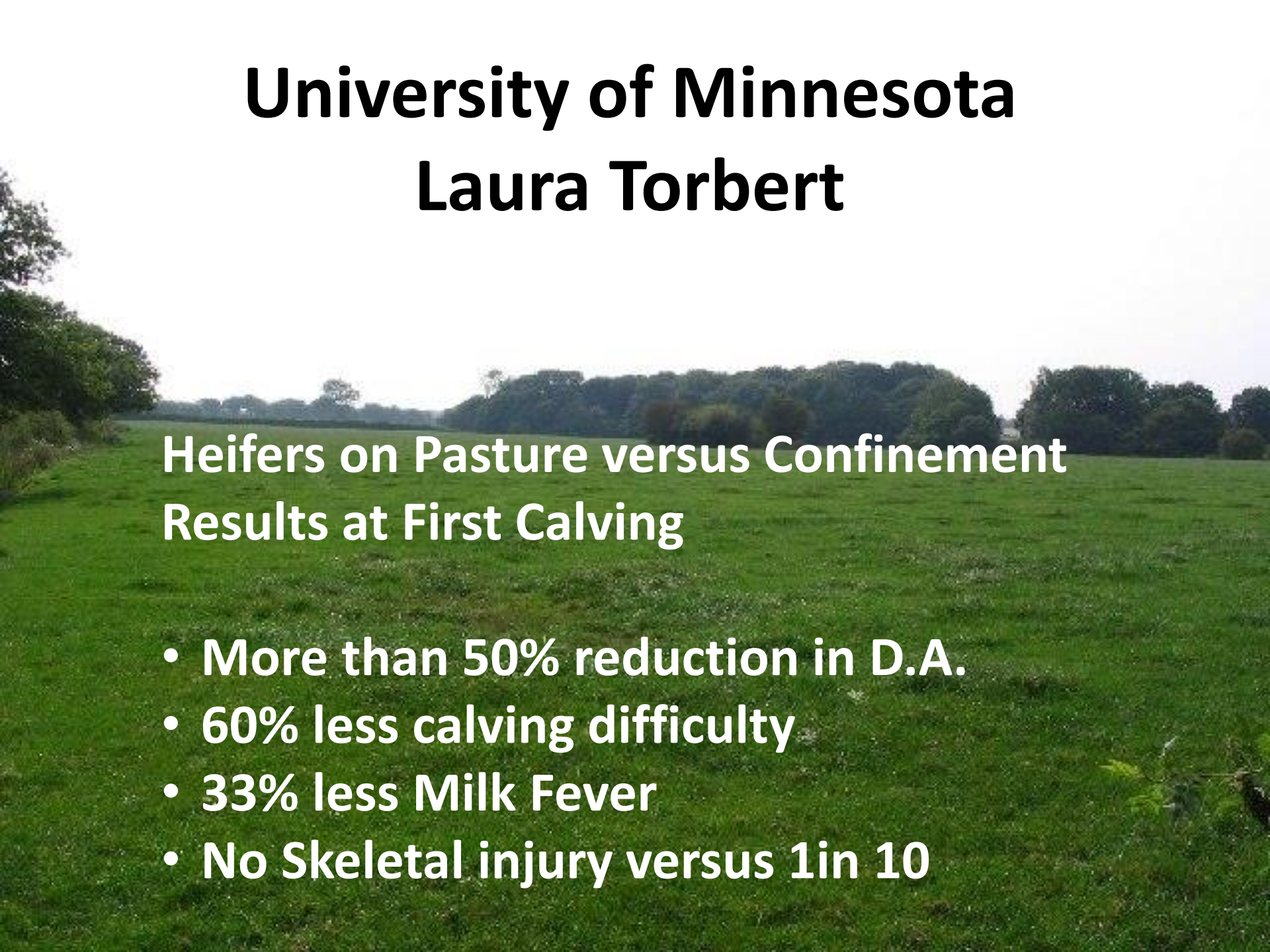
Amortization & Maintenance	$2,090.00
Vet. Services ($5/animal)	$625.00
Land rent total	$17,750.00
Cost of labor during season	$3,375.00
Total cost for grazing season	$23,840.00
Cost per day per animal	**$1.0596**

Savings per year to graze heifers **$43,660.0**

Breitenmoser's Numbers
w/ average land rent and custom raising figures

$1.94/day savings over custom raised

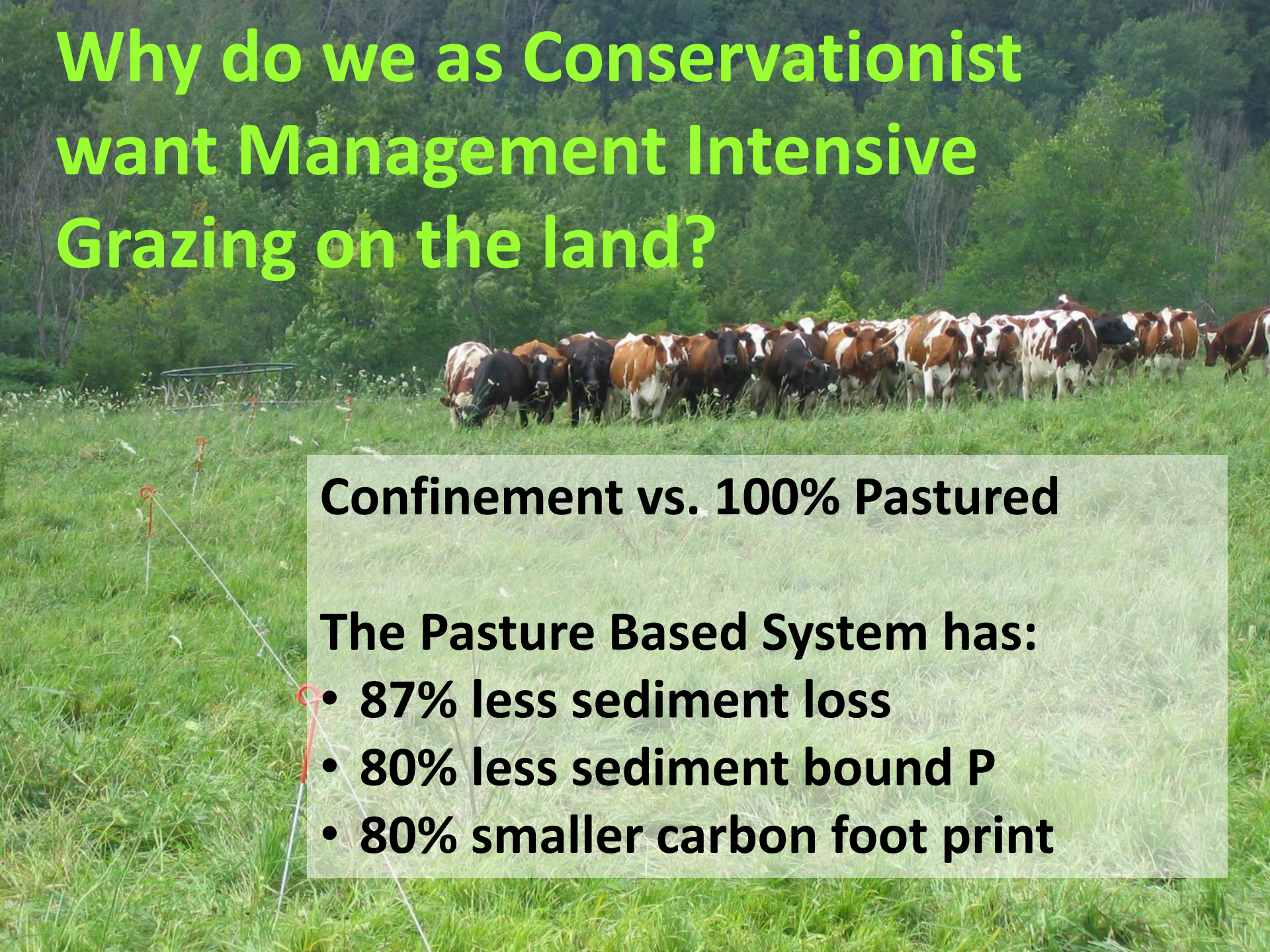
University of Minnesota
Laura Torbert



Heifers on Pasture versus Confinement
Results at First Calving

- **More than 50% reduction in D.A.**
- **60% less calving difficulty**
- **33% less Milk Fever**
- **No Skeletal injury versus 1in 10**

Why do we as Conservationist want Management Intensive Grazing on the land?



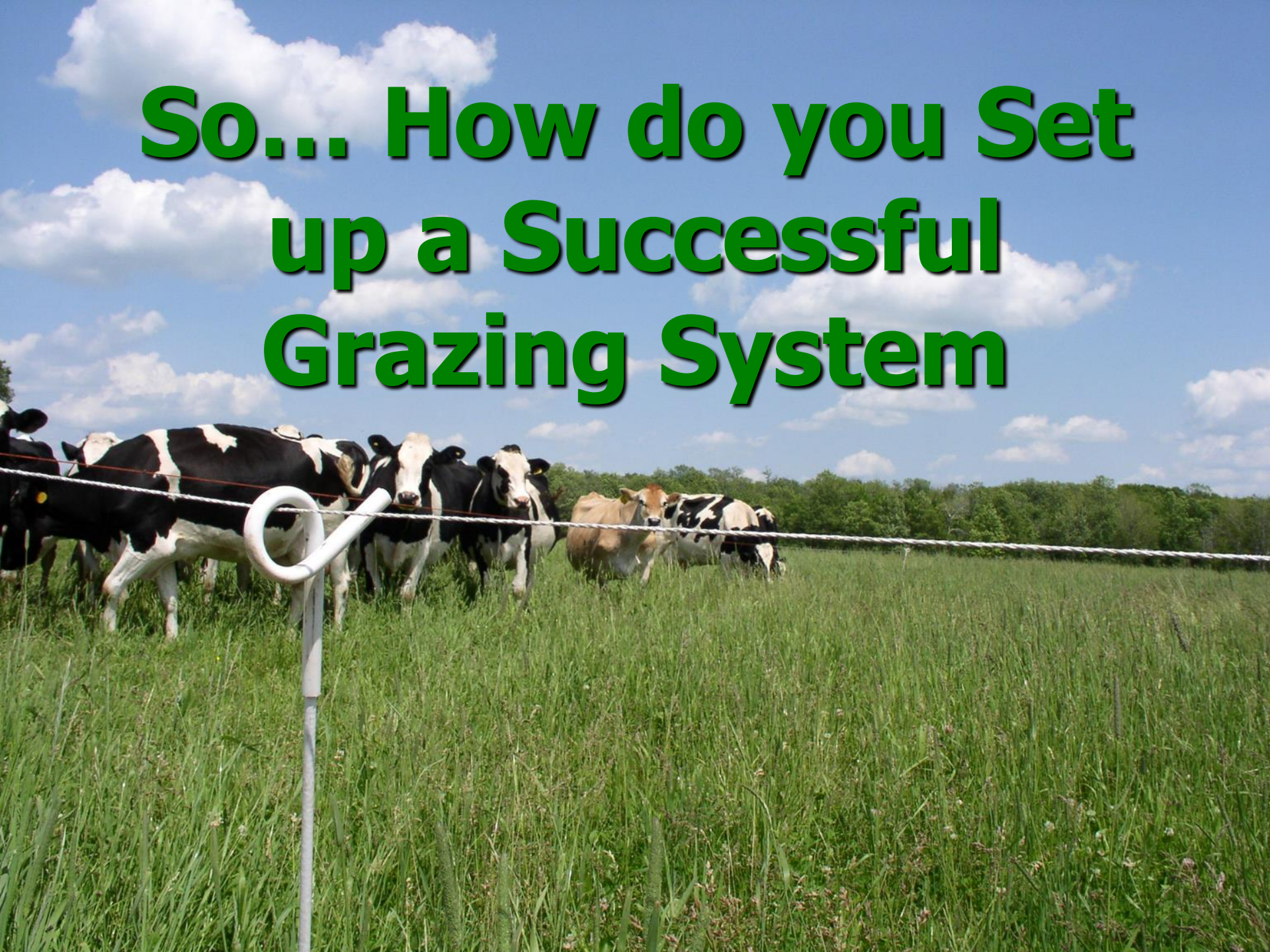
Confinement vs. 100% Pastured

The Pasture Based System has:

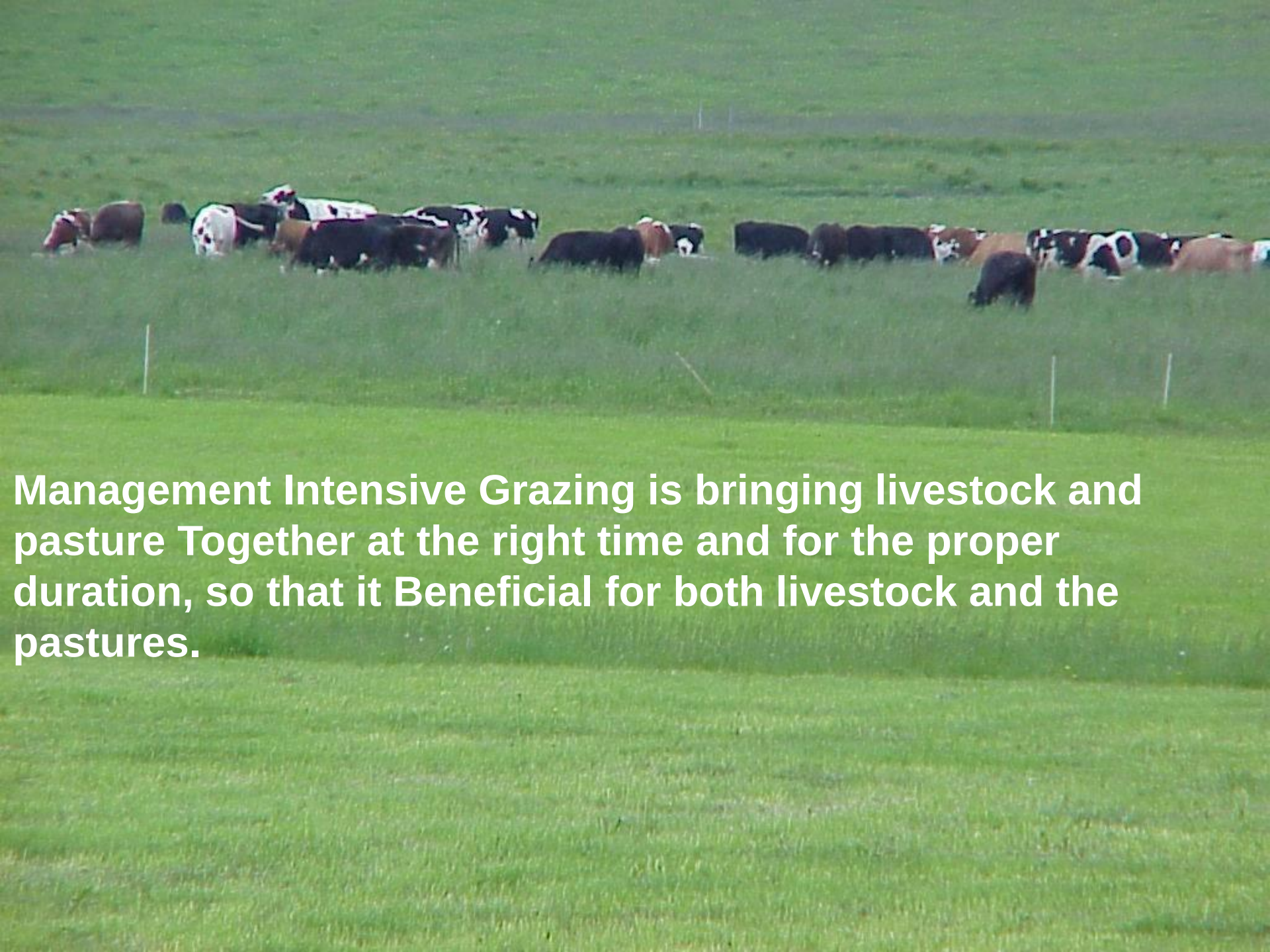
- **87% less sediment loss**
- **80% less sediment bound P**
- **80% smaller carbon foot print**

Bottom Line for Heifers on Pasture

- Gain at Industry Standards
- Rotationally grazed heifers show improved production first lactation
- Stay in the Herd longer
- Have higher fertility rates
- Can be produced at a lower cost than comparable custom raising prices
- Are clean and well conditioned animals
- Significantly reduce the erosion and nutrient runoff associated with confinement feeding


So… How do you Set up a Successful Grazing System


First of all….
What do we mean when we say Management Intensive Grazing (MIG)?



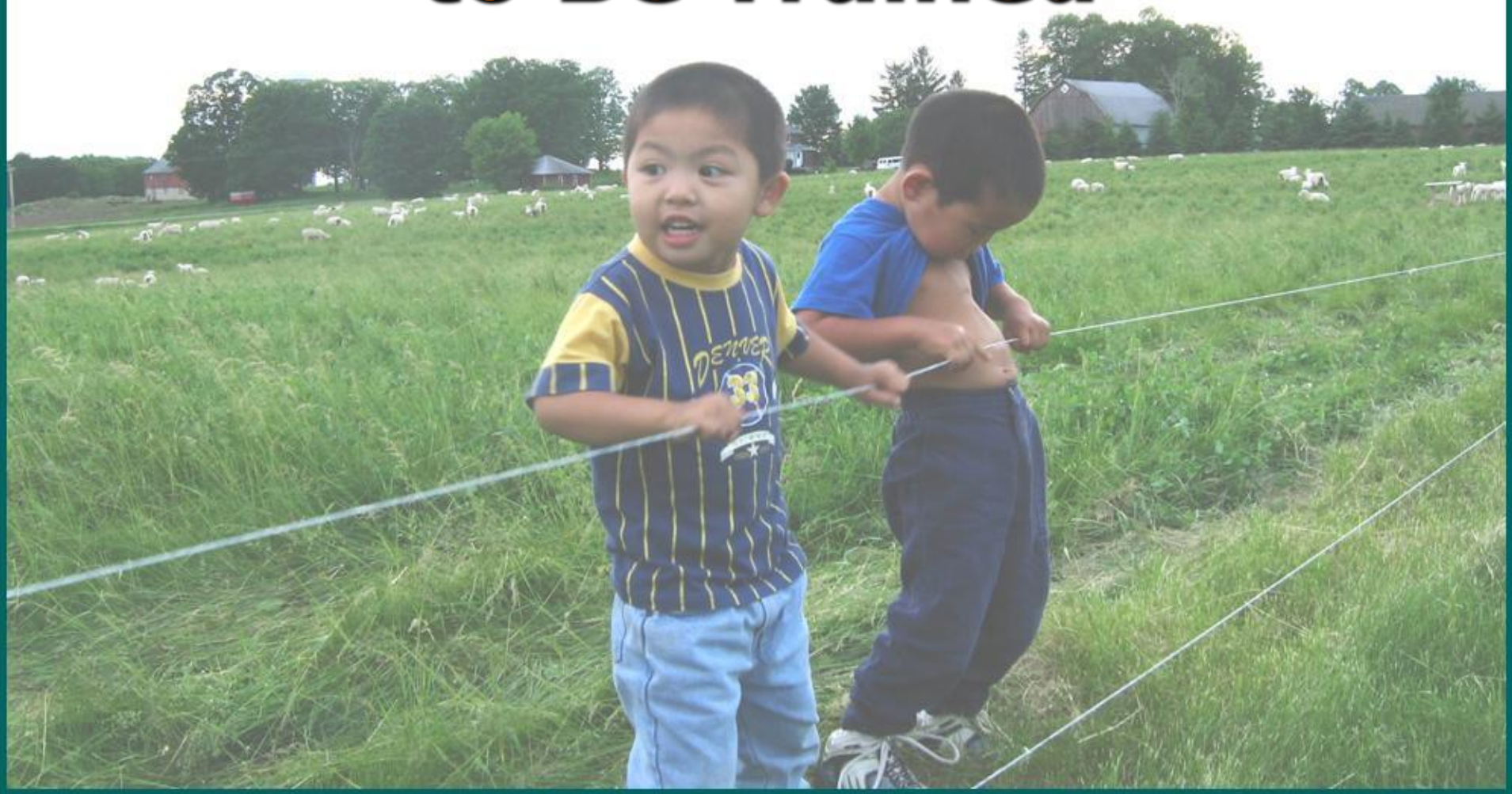
Management Intensive Grazing is bringing livestock and pasture Together at the right time and for the proper duration, so that it Beneficial for both livestock and the pastures.

Proper Layout –There is no right way; but there are definitely wrong ways.


Perimeter Fences
NO HUNTING
WITHOUT WRITTEN PERMISSION


Temporary Fences

Electric Fences are Mental Boundaries Animals Have to Be Trained



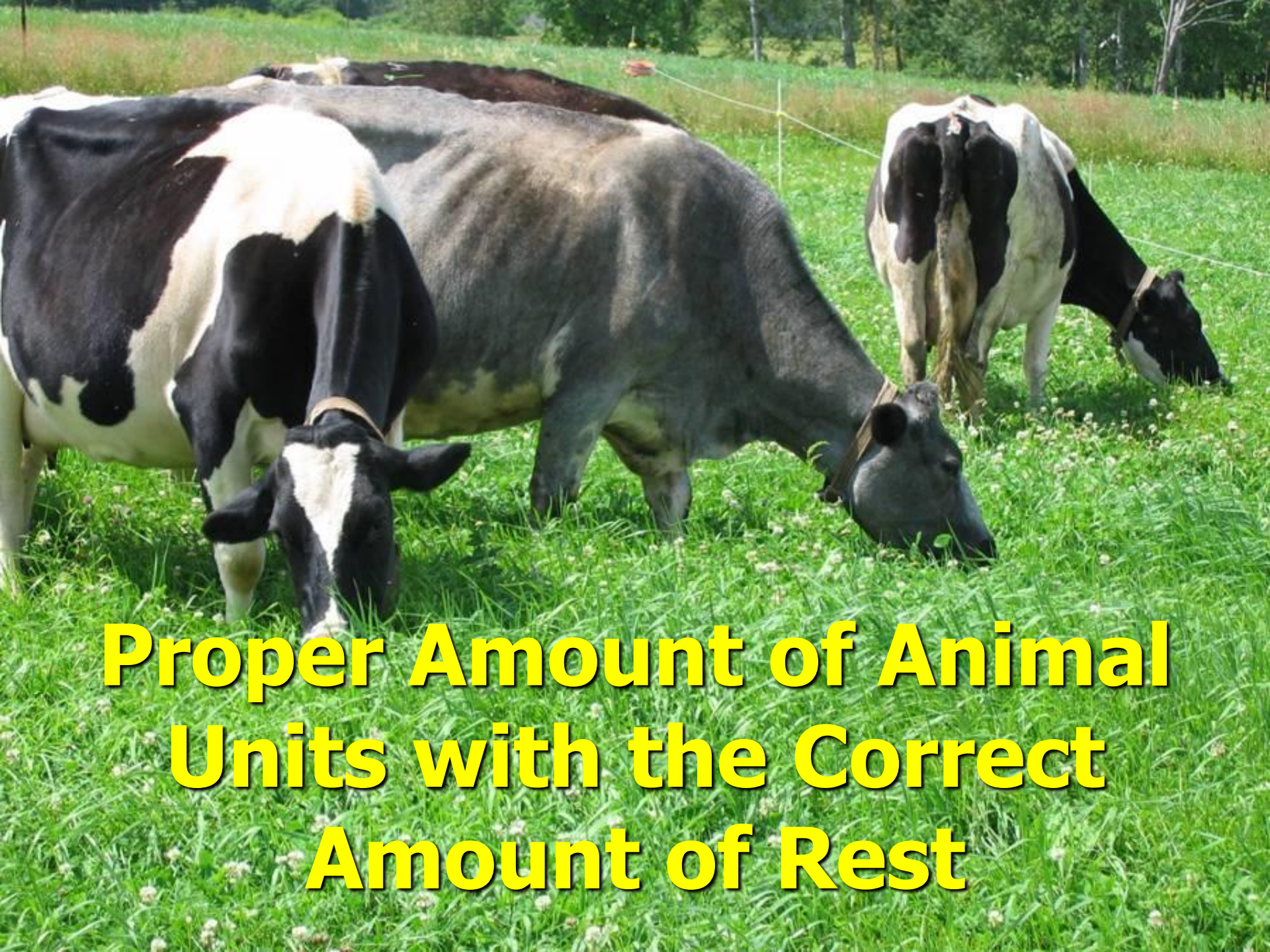
Watering Systems


Lanes

Forages

- Graze what grows
- Fertilize
- Learn how to graze your forages
- Plant species that are suited to your farm


Too Many Animal Units
with too Little Rest


Proper Amount of Animal Units with the Correct Amount of Rest

Basic Operation and Maintenance for M.I.G.

- Paddock rest is extremely important
- Do not over graze
- Square paddocks
- Always work on improving fertility

Other Things to Consider

- Feed Budget
- Nutrient Management
- Plan for the Weather
- Animal Feeding Sites
- Harvest Strategies
- Out-wintering
- Heavy Use Area


Questions or Comments?